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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,875	12/29/2005	Markus Neumann	DE 030230	6901

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NXP, B.V.
NXP INTELLECTUAL PROPERTY DEPARTMENT
M/S41-SJ
1109 MCKAY DRIVE
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EXAMINER

CONTEE, JOY KIMBERLY

ART UNIT	PAPER NUMBER
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2617

NOTIFICATION DATE	DELIVERY MODE
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10/10/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary	Application No. 10/562,875	Applicant(s) NEUMANN ET AL.	
	Examiner JOY K. CONTEE	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5,6,15,18,24-27,31 and 32 is/are rejected.
- 7) ☒ Claim(s) 2-4,7-14,17 and 28-30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/18/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1,5,6,15,18,24-27,31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ziren et al. (Ziren), US 7,177,602, in view of Krasner, US 6,816,111.

Regarding claim 1, Ziren discloses a method of synchronizing the carrier frequency of a mobile station with the carrier frequency of a base station in a cellular mobile communication system, a reference-frequency oscillator being re-adjusted by means of a final controlling element, characterized in that the frequency variation that occurs in the mobile station due to a change in the temperature of the mobile station and in that, when a large frequency variation is determined and/or expected, the carrier frequency of the mobile station is synchronized with the carrier frequency of the base station, by means of an AFC algorithm, more frequently than is the case when a small frequency variation is determined and/or expected (col. 6, line 46 to col. 7, line 12 and col. 8, lines 4-67).

Ziren fails to explicitly disclose wherein the frequency variation that occurs when there is a change in the location of the mobile station relative to the base station are determined and/or predicted separately.

Art Unit: 2617

In a similar field of endeavor, Krasner discloses wherein the frequency variation that occurs when there is a change in the location of the mobile station relative to the base station are determined and/or predicted separately (col. 2, line 50 to col. 3, line 5) .

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Ziren to include synchronization when there is a change of location for the purpose of providing calibration and correction in positioning.

Regarding claim 5, Ziren and Krasner discloses a method as claimed in claim 1, characterized in that a measured variable from which conclusions are drawn as to the absolute temperature of the mobile station is obtained in the mobile station (col. 6, line 46 to col. 7, line 12 and col. 8, lines 4-67).

Regarding claim 6, Ziren and Krasner discloses a method as claimed in claim 5, characterized in that the time-based temperature gradient is determined from measured variables (col. 6, line 46 to col. 7, line 12 and col. 8, lines 4-67).

Regarding claim 15, Ziren and Krasner discloses a method as claimed in claim 1, characterized in that critical states that affect temperature are identified in advance, and the change in frequency to be expected can be estimated (col. 6, line 46 to col. 7, line 12 and col. 8, lines 4-67).

Regarding claim 16, Ziren and Krasner discloses a method as claimed in any claim 1, characterized in that, before any measurement of the frequency error, an estimate is made of the temperature-related frequency error that can be expected. (col. 6, line 46 to col. 7, line 12 and col. 8, lines 4-67).

Art Unit: 2617

Regarding claim 17, Ziren and Krasner discloses a method as claimed in claim 1, characterized in that, when measurements of the frequency variation are not possible due to poor reception conditions, the temperature-related frequency error that can be expected is estimated and is taken into account in the control process(col. 6,line 46 to col. 7,line 12 and col. 8,lines 4-67).

Regarding claim 18, Ziren and Krasner discloses a method as claimed in claim 1, characterized in that the current mode of operation of the mobile station, and particularly the current transmitted power and/or, in the case of a TDMA-based mobile station, the number of time slots occupied in the transmitting mode, are included in the processing for the estimation in advance of the change in temperature or frequency variation.

Regarding claim 24, Ziren and Krasner discloses a method as claimed in claim 1, characterized in that the AFC algorithm adjusts the length of the AFC measuring intervals as a function of the size of the past and expected change in frequency, and/or when critical states of change of location and/or critical states that affect temperature are predicted.

Regarding claim 25, Ziren and Krasner discloses a method as claimed in claim 1, characterized in that the AFC algorithm adjusts the length of the AFC control interval as a function of the size of the past and expected change in frequency, and/or when critical states of change of location and/or critical states that affect temperature are predicted, and/or when the reception conditions are good(col. 6,line 46 to col. 7,line 12 and col. 8,lines 4-67).

Art Unit: 2617

Regarding claim 26, Ziren and Krasner discloses a method as claimed in claim 1, characterized in that the AFC algorithm adjusts the conversion by the AFC final controlling element as a function of the size of the past and expected change in frequency, and/or when critical states of change of location and/or critical states that affect temperature are predicted, and/or when the reception conditions are good(col. 6,line 46 to col. 7,line 12 and col. 8,lines 4-67).

Regarding claim 27, Ziren and Krasner discloses a method as claimed in claim 1, characterized in that the AFC algorithm adjusts the AFC's memory of measured values as a function of the size of the past and expected change in frequency, and/or when critical states of change of location and/or critical states that affect temperature are predicted, and/or when the reception conditions are good(col. 6,line 46 to col. 7,line 12 and col. 8,lines 4-67).

Regarding claim 30, Ziren discloses a mobile station with a reference-frequency oscillator being re-adjusted by means of a final controlling element, characterized in that the frequency variation that occurs in the mobile station due to a change in the temperature of the mobile station and the frequency variation that occurs when there is a change in the location of the mobile station relative to the base station are determined and/or predicted separately, and in that, when a large frequency variation is determined and/or expected, the carrier frequency of the mobile station is synchronized with the carrier frequency of the base station, by means of an AFC algorithm, more frequently than is the case when a small frequency variation is determined and/or expected. expected (col. 6,line 46 to col. 7,line 12 and col. 8,lines 4-67).

Art Unit: 2617

Ziren fails to explicitly disclose wherein the frequency variation that occurs when there is a change in the location of the mobile station relative to the base station are determined and/or predicted separately.

In a similar field of endeavor, Krasner discloses wherein the frequency variation that occurs when there is a change in the location of the mobile station relative to the base station are determined and/or predicted separately (col. 2, line 50 to col. 3, line 5) .

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Ziren to include synchronization when there is a change of location for the purpose of providing calibration and correction in positioning.

Regarding claim 31, Ziren discloses a microprocessor for a mobile station, the microprocessor is provided for controlling a reference-frequency oscillator characterized in that the microprocessor is provided for determining and/or predicting separately the frequency variation that occurs in the mobile station due to a change in the temperature of the mobile station and the frequency variation that occurs when there is a change in the location of the mobile station relative to the base station and in that, when a large frequency variation is determined and/or expected, the microprocessor is provided for synchronizing the carrier frequency of the mobile station with the carrier frequency of the base station, by means of an AFC algorithm, more frequently than is the case when a small frequency variation is determined and/or expected (col. 6, line 46 to col. 7, line 12 and col. 8, lines 4-67).

Ziren fails to explicitly disclose wherein the frequency variation that occurs when there is a change in the location of the mobile station relative to the base station are determined and/or predicted separately.

In a similar field of endeavor, Krasner discloses wherein the frequency variation that occurs when there is a change in the location of the mobile station relative to the base station are determined and/or predicted separately (col. 2,line 50 to col. 3,line 5) .

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Ziren to include synchronization when there is a change of location for the purpose of providing calibration and correction in positioning.

Allowable Subject Matter

3. Claims 2-4,7-14,19-23 and 28 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOY K. CONTEE whose telephone number is (571)272-7906. The examiner can normally be reached on Monday through Friday, 5:30 a.m. to 2:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on 571.272.7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JC

/Joy K Contee/
Patent Examiner(PSA), Art Unit 2617